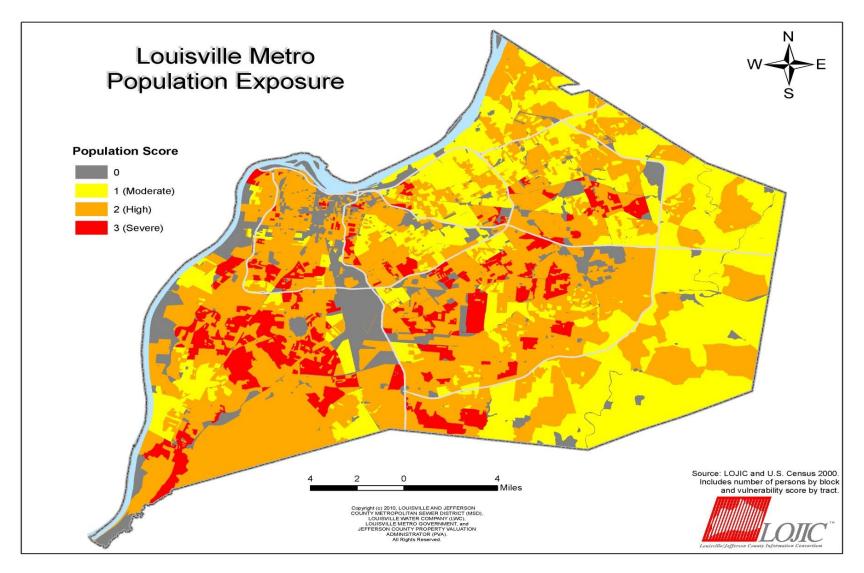
## **APPENDIX 3.1**

## **Exposure Score Maps**

The Following maps depict the Exposure Score variables for the Louisville Metro Hazard Vulnerability Score. The Exposure Score places the asset variables into the Hazard Vulnerability Score. Each one of the Exposure Score variables can be used individually or combined to develop the Composite Exposure Score developed for this plan. Each variable was calculated and then ranked 0 to 3 (0 = No data, 1 = Moderate, 2 = High, and 3 = Severe), using the Natural Breaks (Jenks) method provided in ArcGIS as a classification choice. In order to develop the Composite Exposure Score each exposure variable was calculated (0-3) and added together.

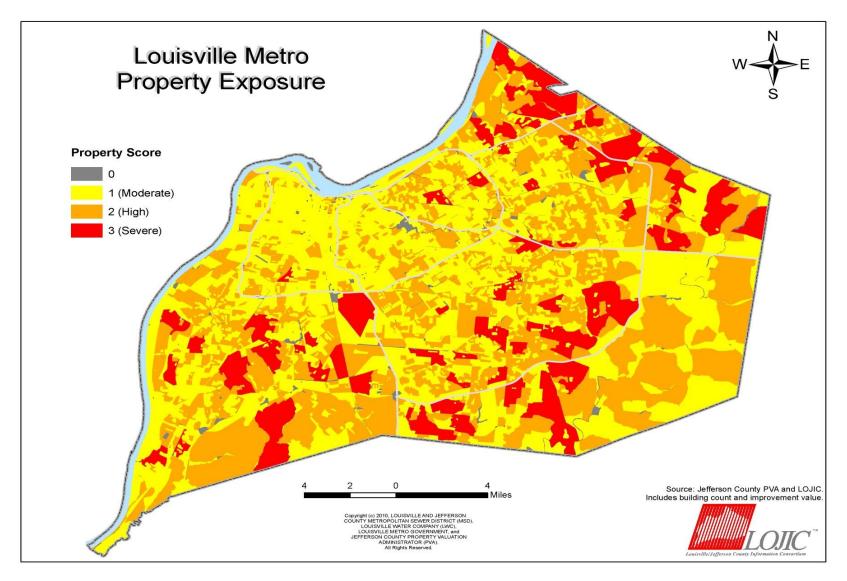
EXPOSURE SCORE (0-3) = Population Rank (0-3) + Property Rank (0-3) +
Essential Facilities Rank (0-3) + Utilities Rank (0-3) + Transportation Rank (0-3) +
Government Facilities Rank (0-3) + Civic/Employment Center Rank (0-3) +
Dam/Levee Rank (0-3) + Hazardous Materials Rank (0-3)



The Population Rank Map displays high concentrations of population and socially vulnerable populations within each census block. Each variable was calculated, then ranked separately (0-3) and then added together and re-ranked to develop the *Population Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

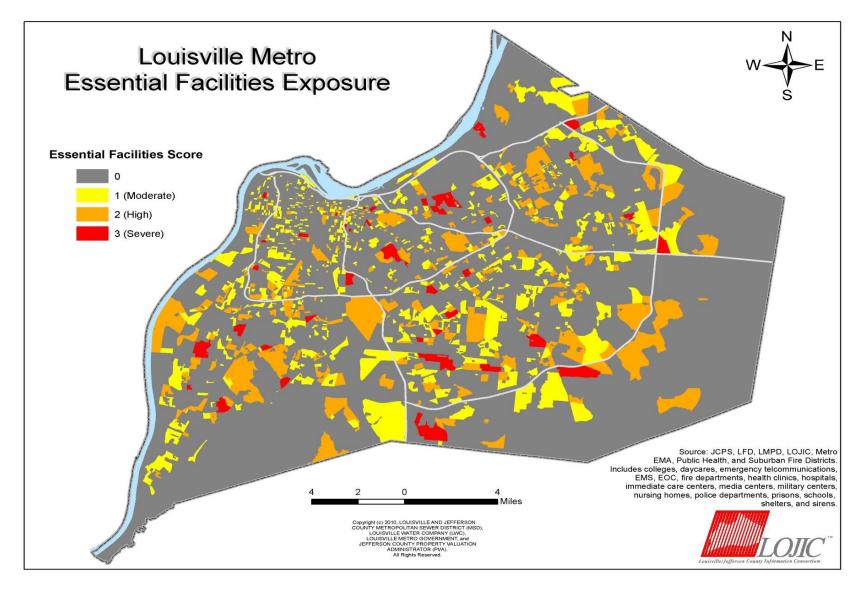
Page 2 of 11



The Property Rank Map displays high concentrations of primary buildings and their improvement costs within each census block. Each variable was calculated, then ranked separately (0-3) and then added together and re-ranked to develop the *Property Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

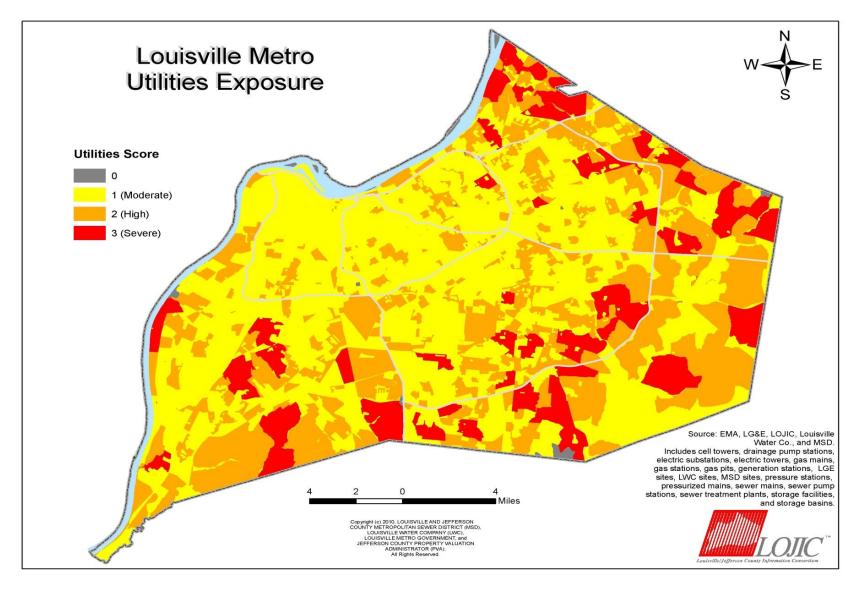
Page 3 of 11



The Essential Facilities Rank Map displays high concentrations of essential facilities located within each census block. Each variable was counted, then added together and ranked (0-3) to develop the *Essential Facilities Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

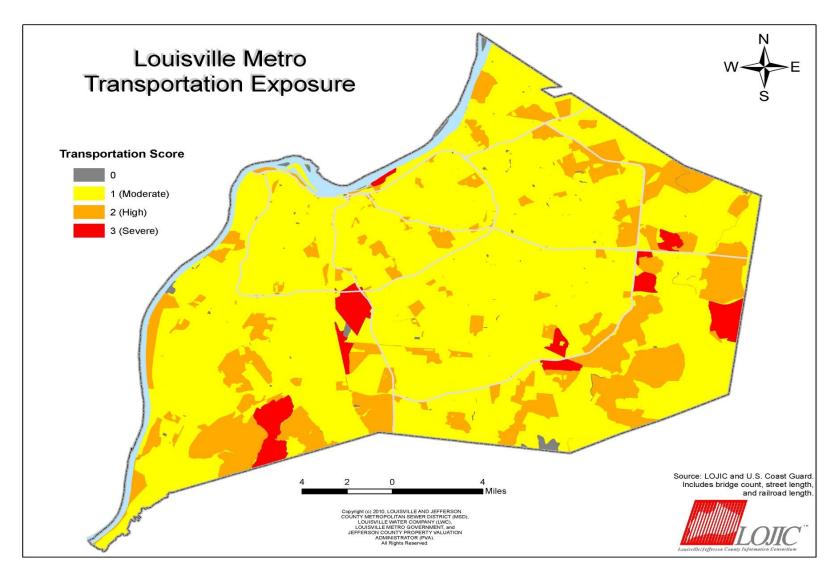
Page 4 of 11



The Utility Facilities Rank Map displays high concentrations of utility facilities located within each census block. Each variable was counted, then added together and ranked (0-3) to develop the *Utility Facilities Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

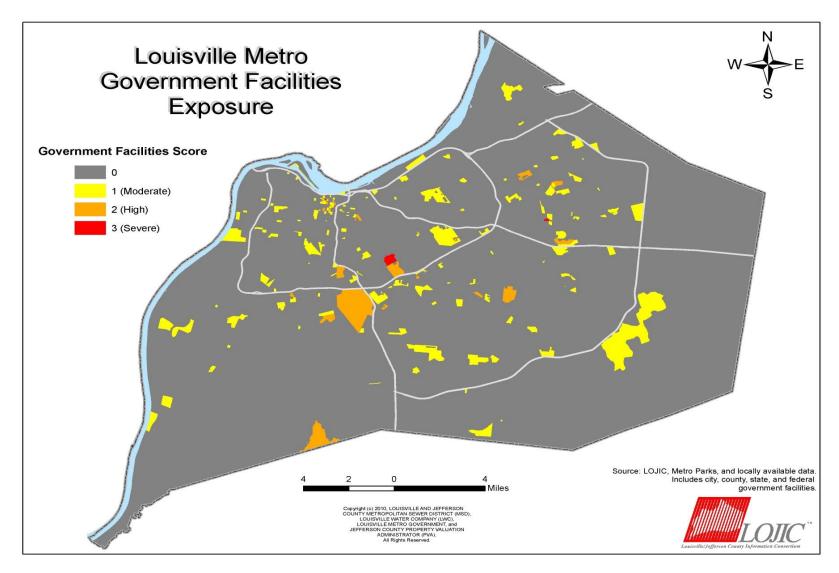
Page 5 of 11



The Transportation Rank Map displays high concentrations of transportation facilities located within each census block. Each variable was counted, then added together and ranked (0-3) to develop the *Transportation Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

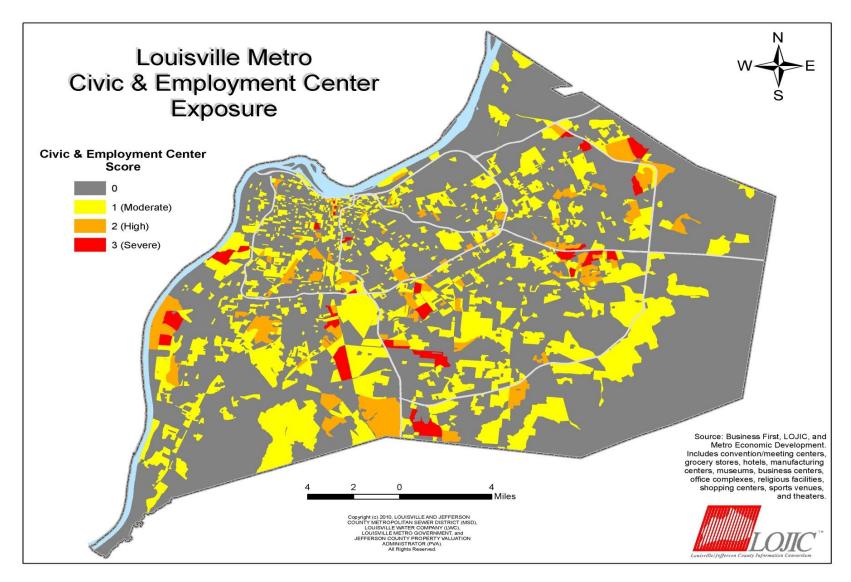
Page 6 of 11



The Government Facilities Rank Map displays high concentrations of government facilities (local, state and federal) located within each census block. Each variable was counted, then added together and ranked (0-3) to develop the *Government Facilities Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

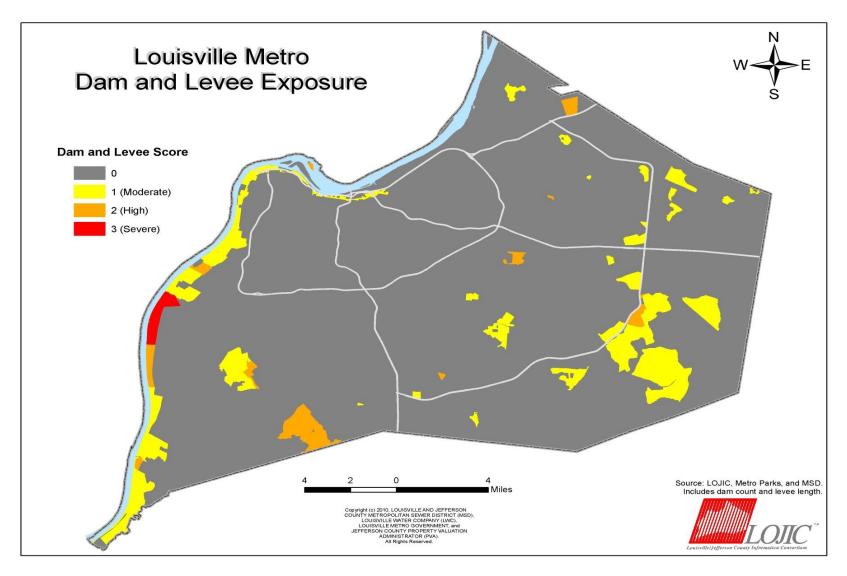
Page 7 of 11



The Civic/Employment Center Rank Map displays high concentrations of civic/employment centers located within each census block. Each variable was counted, then added together and ranked (0-3) to develop the *Civic/Employment Center Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps

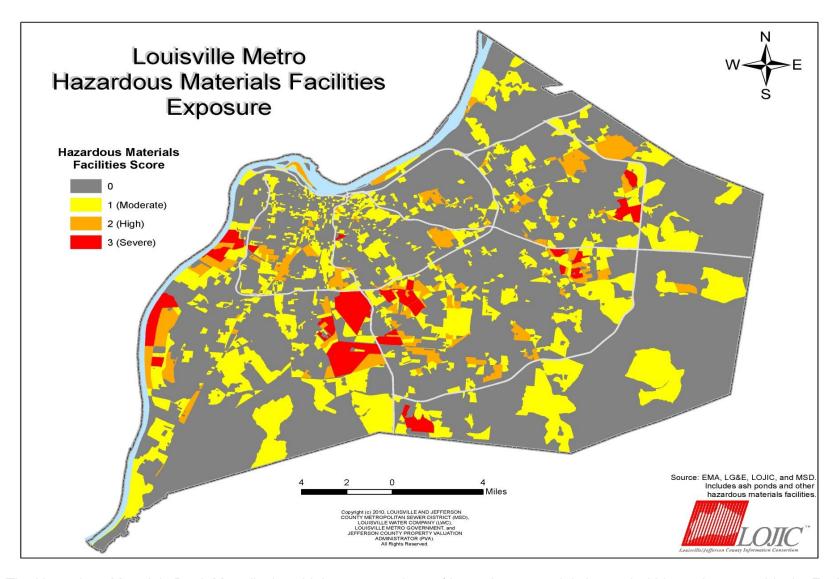
Page 8 of 11



The Dam/Levee Rank Map displays high concentrations of dams and length of levee's located within each census block. Each variable was calculated, then ranked separately (0-3) and then added together and re-ranked to develop the *Dam/Levee Rank* which is displayed in this map.

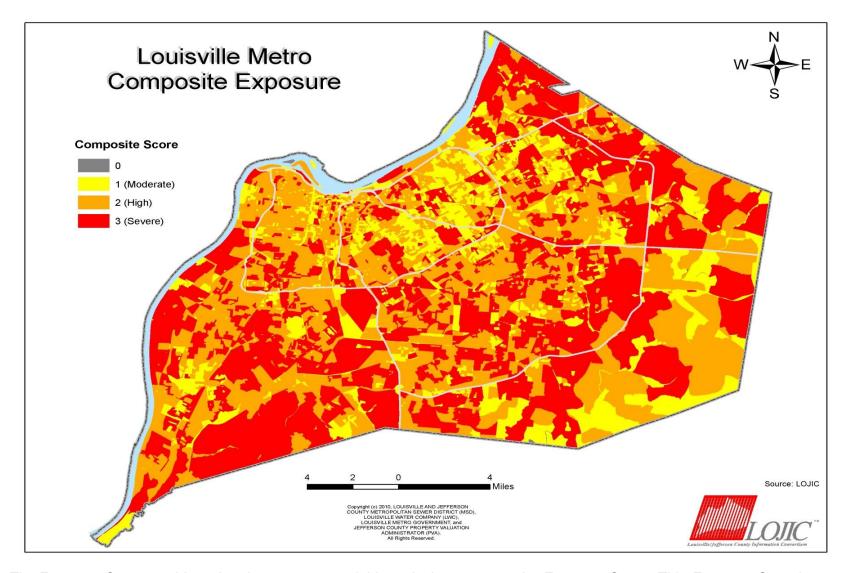
Appendix 3.1 Exposure Score Maps

Page 9 of 11



The Hazardous Materials Rank Map displays high concentrations of hazardous materials located within each census block. Each hazardous materials site was counted, then added together and ranked (0-3) to develop the *Hazardous Materials Rank* which is displayed in this map.

Appendix 3.1 Exposure Score Maps Page 10 of 11



The Exposure Score combines the nine exposure variable ranks into a composite *Exposure Score*. This *Exposure Score* is one of the two variables used to create the *Hazard Vulnerability Score* for each of hazards identified in the plan. The *Exposure Score* displays areas of concern based on high concentrations of assets throughout the community.

Appendix 3.1 Exposure Score Maps

Page 11 of 11